

REMARKS/ARGUMENTS

Claims 1 and 72 have been amended. Claims 1, 3, 7-12, 14-26, 31-33, and 68-72 remain pending in the application. (Claims 2, 4-6, 13, 27-30, and 34-67 were previously canceled).

Applicants respectfully request reexamination and reconsideration of the application.

All of the pending claims were rejected under 35 USC § 103(a) as being unpatentable in view of one or more of US Patent No. 5,635,832 to Ito et al. ("Ito"), US Patent No. 5,949,242 to Wood et al. ("Wood"), US Patent No. 6,078,845 to Friedman ("Friedman"), and US Patent No. 5,528,825 to Miyauchi et al. ("Miyauchi"). Applicants respectfully traverse this rejection.

Claim 1, the only pending independent claim, states that standoffs on a carrier are inserted into holes in a surface of a substrate. In the Office Action dated March 17, 2004, Ito's IC carrier 30 was equated with the carrier of claim 1; Ito's socket 50 was equated with the substrate of claim 1; and Ito's carrier guide 36 was equated with the standoffs of claim 1. Ito's carrier guide 36, however, is not inserted into a hole in the surface of Ito's socket 50. Ito does not, therefore, meet all of the requirements of claim 1, which among other things, requires that the carrier's standoffs be inserted into holes in the surface of the substrate. None of Wood, Friedman, or Miyauchi make up for this deficiency in Ito. Therefore, claim 1 is novel with respect to Ito, Wood, Friedman, and Miyauchi.

Moreover, nothing in the prior art of record suggests modifying Ito's carrier guide 36 so that it is inserted into a hole in the surface of socket 50. Indeed, the purpose of carrier guide 36 is to guide placement of the die 40 into the carrier 30. (Ito col. 5, line 63 to col. 6, line 31.) Thus, modifying Ito's carrier guide 36 to be inserted into holes in the surface of the socket 50 would defeat the expressly stated purpose of the carrier guide 36—"to facilitate loading of the IC to be tested onto the IC carrier." (Ito col. 6, lines 20-24.)

In addition, the standoffs and holes of claim 1 are not trivial or mere design choices but rather provide advantages not found in Ito or the other references of record. As also stated in claim 1, the holes are sloped, which causes the carrier to undergo a motion as the standoffs are being inserted into the holes, and that motion includes a horizontal component with respect to the surface of the substrate. As stated in claim 72, the horizontal component of the motion of the carrier causes contact elements of the dies in the carrier to wipe the surface of contact elements on the substrate. As is known, such a wiping action tends to break through oxide or other contaminants on the surface of the contact elements on the substrate. As shown in Figure 10 of

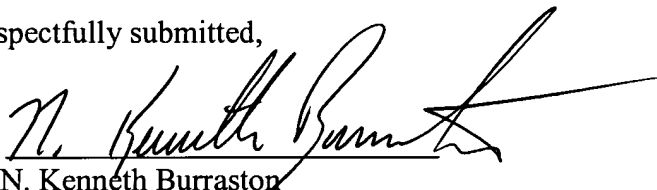
Ito, Ito's IC carrier is designed to be placed onto socket 50 with a purely vertical motion. No horizontal motion is induced and consequently no wiping of a terminal surfaces that are generally parallel to the surface of socket 50 is induced. The standoffs and sloped holes of claim 1, thus, provide advantages not provided by Ito or any other reference of record and represent an improvement over those references. Therefore, the standoffs and sloped holes of claim 1 are not obvious with respect to Ito and the other references of record, whether taken singly or in combination.

Claims 3, 7-12, 14-26, 31-33, and 68-72 depend from claim 1 and are therefore also patentable.

In view of the foregoing, Applicants submit that all of the claims are allowable and the application is in condition for allowance. If the Examiner believes that a discussion with Applicants' attorney would be helpful, the Examiner is invited to contact the undersigned at (801) 536-6763.

Respectfully submitted,

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